CLAIM AMENDMENTS

1. (currently amended) An isolated genomic nucleic acid molecule, said nucleic acid molecule obtainable from human chromosome 7 having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

~~(a) a nucleic acid molecule encoding a polypeptide selected from the group consisting of human SNARE YKT6 depicted in SEQ ID NO:1, human glucokinase depicted in SEQ ID NO:2, human adipocyte enhancer binding protein 1 depicted in SEQ ID NO:3 and DNA directed 50kD regulatory subunit (POLD2) depicted in SEQ ID NO:4 and variants thereof;~~

(ba) a nucleic acid molecule ~~selected from the group consisting of SEQ ID NO:5 which encodes human SNARE YKT6 depicted in SEQ ID NO:1,~~ depicted in SEQ ID NO:6 which encodes ~~human glucokinase depicted in SEQ ID NO:2, SEQ ID NO:8 which encodes~~a polypeptide which is at least 95% identical toSEQ ID NO:3 and has human adipocyte enhancer binding protein 1 ~~activity depicted in SEQ ID NO:3 and SEQ ID NO:7 which encodes DNA directed 50kD regulatory subunit (POLD2) depicted in SEQ ID NO:4 and variants thereof~~;

(cb) a ~~nucleic acid molecule extending from the 5' end of SEQ ID NO:5 to the 3' end of SEQ ID NO:8 that comprises the contiguous coding sequences for SNARE YKT6, glucokinase, POLD2 and the adipocyte enhancer binding protein 1~~fragment of (a) comprising nucleotides 1301-10893 of SEQ ID NO:6 which encodes a polypeptide which is at least 95% identical to SEQ ID NO:3 and has human adipocyte enhancer binding protein 1 activity;

(dc) a nucleic acid molecule which hybridizes to any one of the ~~polynucleotides~~ nucleic acid molecules in their entireties specified in (a)-(cb) and has the activity of (a) and (b);

(ed) a nucleic acid molecule which is a reverse complement of the polynucleotides specified in (a)-(c);

2. (previously presented A nucleic acid construct comprising the nucleic acid molecule of claim 1.

3. (previously presented) An expression vector comprising the nucleic acid molecule of claim 1.

4. (original) A recombinant host cell comprising the nucleic acid molecule of claim 1.

Claim 5 (cancelled)

6. (currently amended) A method for obtaining human adipocyte enhancer binding protein 1 ~~a polypeptide encoded by a nucleic acid molecule obtainable from human chromosome 7, said polypeptide selected from the group consisting of human SNARE YKT6, human glucokinase, human adipocyte enhancer binding protein 1 and DNA directed 50kD regulatory subunit (POLD2)~~ comprising:

(a) culturing the recombinant host cell of claim4 under conditions that provide for the expression of said polypeptide and

(b) recovering said expressed polypeptide.

7. (currently amended-withdrawn) A method for preparing an antibody specific to ~~a polypeptide selected from the group consisting of human SNARE YKT6, human glucokinase,~~ human adipocyte enhancer binding protein 1 ~~and DNA directed 50kD regulatory subunit (POLD2)~~ comprising:

(a) obtaining a polypeptide according to the method of claim 6;

(b) optionally conjugating said polypeptide to a carrier protein;

(c) immunizing a host animal with said polypeptide or polypeptide-carrier protein conjugate of step (b) with an adjuvant and

(d) obtaining antibody from said immunized host animal.

8. (currently amended) An isolated nucleic acid molecule of at least ~~15~~ 20 nucleotides or mimetic which hybridizes at high stringency to ~~a non-codingan~~ intron region specific to the nucleic acid molecule of claim 1~~, which non-coding region is selected from the group consisting of an intron, a splice junction, a 5' non-coding region, a transcription factor binding region, an expression control region and a 3' non-coding region~~.

9. (withdrawn) A method of diagnosing a pathological condition or susceptibility to a pathological condition in a subject comprising:

(a) isolating genomic DNA from a subject;

(b) determining the presence or absence of a variant in said genomic DNA using the nucleic acid molecule of claim 8 and

(c) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said variant.

10. (previously presented) A composition comprising the nucleic acid molecule of claim 1 and a carrier.

11. (previously presented) A composition comprising the nucleic acid molecule of claim 8 and a carrier.

12. (withdrawn) A method for preventing, treating or ameliorating a medical condition, comprising administering to a subject an amount of the composition of claim 10 effective to prevent, treat or ameliorate said medical condition.

13. (withdrawn) A method for preventing, treating or ameliorating a medical condition, comprising administering to a subject an amount of the composition of claim 11 effective to prevent, treat or ameliorate said medical condition.

14. (previously presented) A kit comprising the nucleic acid molecule of claim 8.

15. (original) The kit according to claim 14, in which the polynucleotide is labeled with a detectable substance.

16. (previously presented) The kit according to claim 14, which comprises a plurality of nucleic acid molecules.

Claims 17-22 are cancelled.

23. (withdrawn-currently ameneded) A method for modulating levels of ~~human SNARE YKT6, human glucokinase,~~ human adipocyte enhancer binding protein 1 ~~or DNA directed 50kD regulatory subunit (POLD2)~~ in a subject in need thereof comprising administering to said subject an amount of the nucleic acid molecule of claim 1 effective to modulate said ~~human SNARE YKT6, human glucokinase,~~ human adipocyte enhancer binding protein 1 ~~or DNA directed 50kD regulatory subunit (POLD2)~~ levels.

24. (withdrawn-currently amended) A method for modulating levels of ~~human SNARE YKT6, human glucokinase,~~ human adipocyte enhancer binding protein 1 ~~or DNA directed 50kD regulatory subunit (POLD2)~~ in a subject in need thereof comprising administering to said subject an amount of the nucleic acid molecule of claim 8 effective to modulate said ~~human SNARE YKT6, human glucokinase,~~ human adipocyte enhancer binding protein 1 ~~or DNA directed 50kD regulatory subunit (POLD2)~~ levels.

25. (withdrawn-currently amended) A method of identifying variants of SEQ ID NOS: ~~5, 6, 7 or 8~~ comprising

(a) isolating genomic DNA from a subject and

(b) determining the presence or absence of a variant in said genomic DNA using the nucleic acid molecule of claim 8.

26. (withdrawn-currently amended) A method for detecting the presence or absence of a non-coding nucleic acid sequence specific to the nucleic acid molecule of claim 1 in a sample, said method comprising contacting ~~the~~ a sample with a nucleic acid molecule of at least ~~15~~ 20 nucleotides which hybridizes at high stringency to a non-coding region specific to ~~the nucleic acid molecule of claim 1, which non-coding region is selected from the group consisting of~~ an intron region of said nucleic acid molecule, ~~a splice junction, a 5' non-coding region, a transcription factor binding region, an expression control region and a 3' non-coding region.~~